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Before the

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Federal Communications Commission
Office of the Secretary

ORIGINAL

FILE

In the Matter of	)
	)
An Inquiry into the	)
Commission's Policies and	)
Rules Regarding AM	)
Directional Antenna	)
Performance Verification	)

RM-7594

SUPPORTING COMMENTS OF LAHM, SUFFA & CAVELL, INC.

Lahm, Suffa & Cavell, Inc. (LS&C), a consulting engineering firm regularly engaged in the design, analysis, and performance measurement of AM broadcast antenna systems, hereby submits its supporting comments in the above-captioned matter. LS&C was one of the five firms ("Joint Petitioners") jointly filing the Petition for Inquiry to which these comments are directed. We continue to fully support the initiation of a broad and formal Inquiry into (or, alternatively, a specific rule making proceeding concerning) *all* policies and rules concerning AM antenna system performance verification.

LS&C believes that interference between stations can be effectively regulated only if the technical rules pertaining thereto are appropriate. We remain concerned that the present regulatory scheme's reliance on magnetic field strength measurements as a primary means of verifying the groundwave electric field performance of directional antenna systems can lead to unintentional and unknown misadjustment of AM antenna systems in some cases. Such misadjustment may cause significant interstation interference, particularly during nighttime hours. Furthermore, there is evidence of significant variations in the relationship between magnetic and electric field strength in urban environments, so there are questions

as to the accuracy of the present method of establishing electric field radiation values solely by means of linearly scaled magnetic field strength measurements.

Accordingly, LS&C believes that a thorough review of the regulatory scheme for the establishment, verification, and maintenance of AM directional antenna systems should be undertaken at this time. A new approach to regulation should be based on present day analysis and measurement techniques. Use of modern internal monitoring apparatus, contemporary numerical modeling techniques, and limited external field strength measurement are expected to be more effective at ensuring proper operation than are the existing regulations. In addition, it is believed that the cost to stations and the Commission of implementing such a scheme will be considerably less than that of the current approach, serving to increase compliance with the agency's rules.

The present method of establishing antenna system performance acts as a disincentive to the improvement or reconditioning of AM stations, changes which could improve service to the public as well as the profitability of the those stations. Implementation of the current method is expensive, time consuming, and can cause major disruption of stations' service when nighttime or low powered nondirectional antennas must be used extensively during daytime hours in order to facilitate the gathering of measurement data. We are aware of situations where high costs and disruptive considerations have contributed to the abandonment or delay of station construction, reconditioning, and/or modifications. In addition, some stations operate outside the parameters of their authorizations, because the cost of re-establishing compliance is perceived as being much higher than the cost of any sanction that might be imposed were such variant operation discovered by the Commission.

There is no evidence that the present regulatory scheme is the only one that can be effective; that other, less expensive approaches will not work.

The expense burden of current regulations does not fall only on stations. The Commission staff must process large volumes of data in conjunction with license applications. Many such applications are necessitated by environmental changes beyond the control of the licensee. When parameters are varied to temporarily compensate for changes in the environment far beyond the transmitter site property, the nature of the present regulatory system necessitates the administration of Special Temporary Authorities (STA) to cover station operations. Such environmental changes may well be benign; there may be no adverse effect on other stations; but the STA process must be administered and a following license modification application reviewed, in many cases. The need to process successive modification applications for the same station (and antenna system) is more frequent in AM than in other broadcast services. The Commission's staff resources are scarce and should be utilized in as an efficient a manner as modern technology permits. To do that, we believe that the entire regulatory scheme needs revision.

We also note that the rules regarding AM antenna system performance are intimately related to the technical standards for the assignment of stations. The assignment criteria are truly realized only if the methods used to establish, verify, and maintain antenna system performance in the field are the most effective available. The Commission's entire assignment scheme is currently undergoing major re-examination in MM Docket No. 87-267. Therefore, it is appropriate for the agency to complement that action with a thorough review of the means of ensuring proper operation of AM antenna systems. We believe that the adoption of revised standards for the establishment of directional antenna performance will

result in improved realization of the underlying allocation standards, an improved overall level of compliance with the FCC's rules, and less chance of unintentional misadjustment of antenna systems.

If an Inquiry is opened or a Notice of Proposed Rule Making issued, LS&C intends to file extensive comments. In the meantime, we continue to fully support the joint Petition for Inquiry and urge the Commission to initiate a formal proceeding concerning this matter.

12 February 1990

Respectfully Submitted,

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Certificate of Service

I, Elaine Huntington, a secretary with the consulting engineering firm of Lahm, Suffa & Cavell, Inc., hereby certify that exact copies of the foregoing "Supporting Comments of Lahm, Suffa & Cavell, Inc." were sent this 13th day of February 1991 by first class mail, postage prepaid, to the following:

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